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UNITED STATES DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
WASHINGTON, D. C.

MAY 19 1940  
received

April 8, 1940

Dear Sir:

Enclosed is a copy of a second Proposed Revision of the United States Standards for Quality of Shell Eggs. This is being sent you for the purpose of obtaining your comments and suggestions regarding the changes proposed. The principal changes made in this revision are:

1. Elimination of classes for "Short-held" and "Storage-packed" eggs.
2. Provision for "Fresh (not storage)" and "Storage" wholesale and retail grades.
3. Slight increases in the tolerances for cracked eggs in most wholesale and retail grades, and for slightly stained or slightly soiled eggs in a few grades.
4. Changes in certain definitions in an effort to further improve and clarify them.

On these and the other proposed changes in the United States Standards for Quality of Shell Eggs, we would appreciate having your comments and suggestions not later than May 15, 1940.

Very truly yours

*C. W. Kitchen*

Chief.



PROPOSED REVISED UNITED STATES STANDARDS  
FOR QUALITY OF SHELL EGGS

(Not Official Standards)

Definitions.

For the purpose of the United States standards for quality of shell eggs:

Eggs. -- Eggs shall be the product of the domestic fowl and in the shell.

CLASSES OF EGGS.

Classes for shell eggs are established as follows:

- (1) Based on condition of shell.
  - (a) NATURAL EGGS shall be eggs that have not been commercially treated with any material that alters the condition or appearance of the shells or is applied for preservative purposes.
  - (b) PROCESSED or SHELL TREATED EGGS shall be eggs that have been processed by the application of odorless, tasteless mineral oil so that the shell pores have been filled with the processing oil. Eggs processed by the vacuum method shall be classified as Vacuum Processed Eggs when this fact is known. Eggs that have been subjected during processing to a temperature that has visibly altered the physical condition of the egg white or the shell membrane shall be classified as shell treated eggs. The character and extent of the altered physical condition of the egg whites or shell membranes of such eggs shall be stated on the grading certificate issued on them.
  - (c) CLEANED EGGS shall be those that have been commercially cleaned with sand or other abrasive for the purpose of removing dirt, stain, processing fluid or other foreign material.
  - (d) WASHED EGGS shall be those that have been commercially washed with water or other fluid.

(2) Based on color of shell.

- (a) BROWN EGGS shall be eggs with brown colored shells, free from white eggs and containing not to exceed 20 percent of eggs with cream colored shells.
- (b) WHITE EGGS shall be eggs with white shells of which at least 80 percent shall be chalk white and the balance may be slightly cream tinted.
- (c) CREAM (TINTED) EGGS shall be eggs with cream colored shells. A lot of cream colored eggs may contain eggs with white shells or not to exceed 10 percent of eggs with light brown shells.
- (d) MIXED COLOR EGGS shall be eggs of which a part may have white shells and a part brown shells. Eggs with cream colored shells may also be included in mixed color eggs.

(3) Based on age and degree of freshness.

- (a) FRESH EGGS shall be eggs that are of relatively recent production or that have the characteristics of relatively new-laid eggs and that have not been held under refrigeration for a period in excess of 29 days.
- (b) STORAGE or REFRIGERATOR EGGS shall be eggs that have been held under refrigeration for a period in excess of 29 days.

## UNITED STATES STANDARDS OF QUALITY FOR INDIVIDUAL EGGS.

### Standards for Eggs with Clean, Unbroken Shells.

United States Standards of Quality for individual eggs with clean, unbroken shells are established as follows:

U. S. SPECIAL or U. S. GRADE AA. The shell must be clean, unbroken, and normal. The air cell must not exceed  $1/8$  inch in depth and may be regular or slightly tremulous. The yolk must be well centered and its outline may be slightly defined. The yolk must be free from defects or blemishes visible before the candle. The white must be clear and firm.

U. S. EXTRA or U. S. GRADE A. The shell must be clean, unbroken, and normal. The air cell must not exceed  $3/16$  inch in depth and may be regular or slightly tremulous. The yolk must be fairly well centered and its outline may be moderately defined. The yolk must be free from defects or blemishes visible before the candle. The white must be clear and reasonably firm.

U. S. STANDARD or U. S. GRADE B. The shell must be clean and unbroken, but may be slightly abnormal. The air cell must not exceed  $5/16$  inch in depth and may show movement not in excess of  $1/2$  inch. If the air cell is small (not over  $3/16$  inch in depth) it may be free. The yolk outline may be well defined. The yolk may be mobile and may show before the candle definite but not serious defects. The white must be clear but may be slightly weak.

U. S. TRADE or U. S. GRADE C. The shell must be clean and unbroken but may be abnormal. The air cell may be over  $5/16$  inch in depth, and may be bubbly or free. The yolk may be plainly visible freely mobile, and appear dark. The yolk may show clearly visible germ development, but no blood due to such development. It may show other serious defects that do not render the egg inedible. The white may be weak and watery. Small meat spots or small blood clots may be present.

### Standards for Eggs with Dirty, Unbroken Shells.

United States Standards of Quality for individual eggs with soiled, stained or dirty shells are established as follows:

U. S. DIRTY EXTRA or U. S. DIRTY GRADE A. The specification for an egg of this quality shall be the same as for a clean U. S. EXTRA (U. S. GRADE A) except that the shell may be slightly stained or slightly soiled.

U. S. DIRTY STANDARD or U. S. DIRTY GRADE B. The specification for an egg of this quality shall be the same as for a clean U. S. Standard (U. S. Grade B) except that the shell may be stained or dirty.



U. S. DIRTY TRADE or U. S. DIRTY GRADE C. The specification for an egg of this quality shall be the same as for a clean U. S. Trade (U. S. Grade C) except that the shell may be stained or dirty.

#### Standard for Eggs with Checked or Cracked Shells.

A United States Standard of Quality for individual eggs with checked or cracked shells is established as follows:

U. S. CHECK or U. S. CRACK. The specification for an egg of this quality may be the same as for any of the preceding United States Standards of Quality for Individual Eggs except that the shell may be checked or cracked, but not leaking.

#### UNITED STATES WHOLESALE GRADES FOR FRESH EGGS

United States Wholesale Grades for fresh (not storage) shell eggs are established as follows:

U. S. NO. 1 SPECIALS or U. S. 80% GRADE AA shall consist of eggs of which at least 80% are of the quality of U. S. Specials (U. S. Grade AA) and the balance, except for tolerance, are of the quality of U. S. Extras (U. S. Grade A) or better. The maximum number of eggs allowed as tolerance per 30 dozen eggs, except as provided by the Rule of Compensation, shall be 9 U. S. Standards (U. S. Grade B), 9 U. S. Trades (U. S. Grade C), 9 U. S. Checks or U. S. Cracks, 8 slightly stained or slightly soiled U. S. Extras (U. S. Grade A), 4 slightly stained or slightly soiled U. S. Standards (U. S. Grade B), and 4 Loss. The minimum net weight per 30 dozen eggs shall be 46 pound. (See page 6 for net weights for medium and small size eggs.)

U. S. NO. 2 SPECIALS or U. S. 50% GRADE AA shall consist of eggs of which at least 50% are of the quality of U. S. Specials (U. S. Grade AA) and the balance, except for tolerance, are of the quality of U. S. Extras (U. S. Grade A) or better. The maximum number of eggs allowed as tolerance per 30 dozen eggs, except as provided by the Rule of Compensation, shall be 9 U. S. Standards (U. S. Grade B), 9 U. S. Trades (U. S. Grade C), 9 U. S. Checks or U. S. Cracks, 8 slightly stained or slightly soiled U. S. Extras (U. S. Grade A), 4 slightly stained or slightly soiled U. S. Standards (U. S. Grade B), and 4 Loss. The minimum net weight per 30 dozen eggs shall be 45 pounds. (See page 6 for net weights for medium and small size eggs.)

U. S. NO. 1 EXTRAS or U. S. 80% GRADE A shall consist of eggs of which at least 80% are of the quality of U. S. Extras (U. S. Grade A) or better, and the balance, except for tolerance, are of the quality of U. S. Standards (U. S. Grade B) or better. The maximum number of eggs allowed as tolerance per 30 dozen eggs, except as provided by the Rule of Compensation, shall be 9 U. S. Trades (U. S. Grade C), 12 U. S. Checks or U. S. Cracks, 12 slightly



stained or slightly soiled U. S. Standards (U. S. Grade B), 4 slightly stained or slightly soiled U. S. Trades (U. S. Grade C), and 6 Loss. The minimum net weight per 30 dozen eggs shall be 45 pounds. (See page 6 for net weights for medium and small size eggs.)

U. S. NO. 2 EXTRAS or U. S. 50% GRADE A shall consist of eggs of which at least 50% are of the quality of U. S. Extras (U. S. Grade A) or better and the balance, except for tolerance, are of the quality of U. S. Standards (U. S. Grade B) or better. The maximum number of eggs allowed as tolerance per 30 dozen eggs, except as provided by the Rule of Compensation, shall be 9 U. S. Trades (U. S. Grade C), 12 U. S. Checks or U. S. Cracks, 12 slightly stained or slightly soiled U. S. Standards (U. S. Grade B), 4 slightly stained or slightly soiled U. S. Trades (U. S. Grade C), and 6 Loss. The minimum net weight per 30 dozen eggs shall be 44 pounds. (See page 6 for net weights for medium and small size eggs.)

U. S. NO. 1 STANDARDS or U. S. 80% GRADE B shall consist of eggs of which at least 80% are of the quality of U. S. Standards (U. S. Grade B) or better, and the balance, except for tolerance, are of the quality of U. S. Trades (U. S. Grade C) or slightly stained or slightly soiled U. S. Standards (U. S. Grade B) or better. The maximum number of eggs allowed as tolerance per 30 dozen eggs, except as provided by the Rule of Compensation, shall be 16 U. S. Checks or U. S. Cracks, 18 slightly stained or slightly soiled U. S. Trades (U. S. Grade C), 8 stained or dirty U. S. Standards (U. S. Grade B), and 8 Loss. The minimum net weight per 30 dozen eggs shall be 44 pounds. (See page 6 for net weights for medium and small size eggs.)

U. S. NO. 2 STANDARDS or U. S. 50% GRADE B shall consist of eggs of which at least 50% are of the quality of U. S. Standards (U. S. Grade B) or better, and the balance, except for tolerance, are of the quality of U. S. Trades (U. S. Grade C), or slightly stained or slightly soiled U. S. Standards (U. S. Grade B) or better. The maximum number of eggs allowed as tolerance per 30 dozen eggs, except as provided by the Rule of Compensation, shall be 12 U. S. Checks or U. S. Cracks, 16 slightly stained or slightly soiled U. S. Trades (U. S. Grade C), 8 stained or dirty U. S. Standards (U. S. Grade B), and 8 Loss. The minimum net weight per 30 dozen eggs shall be 43 pounds. (See page 6 for net weights for medium and small size eggs.)

U. S. TRADES or U. S. GRADE C shall consist of eggs of which at least 80% are of the quality of U. S. Trades (U. S. Grade C) or better, and the balance, except for tolerance, are of the quality of dirty U. S. Standards (U. S. Grade B) or better. The maximum number of eggs allowed as tolerance per 30 dozen eggs, except as provided by the Rule of Compensation, shall be 18 U. S. Checks or U. S. Cracks, 18 stained or dirty U. S. Trades (U. S. Grade C), and 18 Loss. The minimum net weight per 30 dozen eggs shall be 42 pounds. (See page 6 for net weights for medium and small size eggs.)

DIRTY U. S. EXTRAS or DIRTY U. S. GRADE A shall consist of eggs of which at least 80% are of the quality of dirty U. S. Extras (U. S. Grade A) or better, and the balance, except for tolerance, are of the quality of dirty U. S. Standards (U. S. Grade B) or better. The maximum number of eggs allowed as tolerance per 30 dozen eggs, except as provided by the Rule of Compensation, shall be 12 U. S. Checks or U. S. Cracks, 8 slightly stained or slightly soiled U. S. Trades (U. S. Grade C), and 8 Loss. The minimum net weight per 30 dozen eggs shall be 45 pounds. (See page 6 for net weights for medium and small size eggs.)

DIRTY U. S. STANDARDS or DIRTY U. S. GRADE B shall consist of eggs of which at least 50% are of the quality of dirty U. S. Standards (U. S. Grade B) or better, and the balance, except for tolerance, are of the quality of dirty U. S. Trades (U. S. Grade C) or better. The maximum number of eggs allowed as tolerance per 30 dozen eggs, except as provided by the Rule of Compensation, shall be 14 U. S. Checks or U. S. Cracks, and 10 Loss. The minimum net weight per 30 dozen eggs shall be 43 pounds. (See page 6 for net weights for medium and small size eggs.)

DIRTY U. S. TRADES or DIRTY U. S. GRADE C shall consist of dirty eggs that do not conform to the requirements of dirty U. S. Extras (U. S. Grade A) or dirty U. S. Standards (U. S. Grade B), and do not exceed a tolerance per 30 dozen eggs of 36 U. S. Checks or U. S. Cracks and 18 Loss. The minimum net weight per 30 dozen eggs shall be 42 pounds. (See page 6 for net weights for medium and small size eggs.)

U. S. CHECKS or U. S. CRACKS may consist of straight lots of checked or cracked eggs or any combination of checked, dirty and clean eggs that does not conform to any other U. S. Wholesale Grade and that does not exceed a tolerance per 30 dozen eggs of 18 Loss. The minimum net weight per 30 dozen eggs shall be 40 pounds. (See page 6 for net weight for small eggs.)

SIZE or WEIGHT CLASSIFICATIONS. The following minimum weights per 30 dozen eggs are specified for medium size eggs of any fresh U. S. Wholesale Grade, except U. S. Checks, and for small size eggs of any fresh U. S. Wholesale Grade.

Medium -- 40 pounds net per 30 dozen.

Small -- 34 pounds net per 30 dozen.

#### UNITED STATES WHOLESALE GRADES FOR STORAGE EGGS

United States Wholesale Grades for storage shell eggs are established; corresponding to all of the United States Wholesale Grades for fresh shell eggs, except U. S. No. 1 or 80% Specials and U. S. No. 2 or 50% Specials, and except that the air cell depth for eggs of the quality of U. S. Extras (U. S. Grade A), clean or dirty, may be not to exceed 1/4 inch in depth, and for eggs of the quality of U. S. Standards (U. S. Grade B), clean or dirty, may be not to exceed 3/8 inch in depth, and provided further, that the specified minimum net weight per 30 dozen eggs for each storage United States Wholesale Grade may be one pound less than for the corresponding fresh

United States Wholesale Grade.

### RULE OF COMPENSATION

In the U. S. Wholesale and the U. S. Retail Grades for shell eggs substitution may be made within the tolerance allowed, provided that eggs of higher quality or value are substituted in all instances for eggs of lower quality or value. When the number of eggs of any class or grade present is less than the number permitted in the tolerance and the number of eggs present of a higher class or grade exceeds the number permitted in the tolerance, substitution of eggs of the higher class or grade for eggs of the lower class or grade on the basis of egg for egg is permitted to the extent that the number of eggs of a lower class or grade is below the number of such eggs permitted in the tolerance.

In the interpretation of the above rule of compensation the class or grade of eggs from lower to higher quality or value shall be as follows:

1. Loss. (No substitution.)
2. U. S. Checks (U. S. Cracks) and Dirty U. S. Trades (U. S. Grade C).
3. Slightly stained or slightly soiled U. S. Trades (U. S. Grade C) and stained or dirty U. S. Standards (U. S. Grade B).
4. Clean U. S. Trades (U. S. Grade C) and slightly stained or slightly soiled U. S. Standards (U. S. Grade B).
5. Dirty U. S. Extras (U. S. Grade A).
6. Clean U. S. Standards (U. S. Grade B).

Example of the application of the Rule of Compensation: In the U. S. Wholesale Grade of U. S. No. 1 Extras (U. S. 80% Grade A), a tolerance per 30 dozen eggs of 9 U. S. Trades (U. S. Grade C), 12 U. S. Checks or U. S. Cracks, 12 slightly stained or slightly soiled U. S. Standards (U. S. Grade B), 4 slightly stained or slightly soiled U. S. Trades (U. S. Grade C), and 6 Loss is permitted. Under the Rule of Compensation, a case of eggs would be considered to be fully within the requirements of the grade for U. S. No. 1 Extras (U. S. 80% Grade A) although the total number of U. S. Trades (U. S. Grade C) eggs present is 18 instead of 9 (the number permitted in the tolerance), provided there are present no Loss eggs, of which 6 are permitted, and only 1 slightly stained or slightly soiled U. S. Trade (U. S. Grade C), of which 4 are permitted. This is true because the excess of 9 U. S. Trades (U. S. Grade C) may be substituted for the 6 Loss and the 3 slightly stained or slightly soiled U. S. Trades (U. S. Grade C) permitted in the tolerance but not present.



# UNITED STATES RETAIL GRADE FOR FRESH EGGS.

United States Retail Grades for fresh (not storage) shell eggs are established as follows:

U. S. SPECIALS or U. S. GRADE AA shall consist of eggs of which at least 80% are of the quality of U. S. Specials (U. S. Grade AA) and the balance, except for tolerance, are of the quality of U. S. Extras (U. S. Grade A) or better. The maximum number of eggs allowed as tolerance per 30 dozen eggs, except as provided by the Rule of Compensation, shall be 9 U. S. Checks or U. S. Cracks and 8 slightly stained or slightly soiled U. S. Extras (U. S. Grade A). (For weight requirements see page 8.)

U. S. EXTRAS or U. S. GRADE A shall consist of eggs of which at least 80% are of the quality of U. S. Extras (U. S. Grade A) or better, and the balance except for tolerance, are of the quality of U. S. Standards (U. S. Grade B) or better. The maximum number of eggs allowed as tolerance per 30 dozen eggs, except as provided by the Rule of Compensation, shall be 12 U. S. Checks or U. S. Cracks and 12 slightly stained or slightly soiled U. S. Standards (U. S. Grade B). (For weight requirements see page 8).

U. S. STANDARDS or U. S. GRADE B shall consist of eggs of which at least 80% are of the quality of U. S. Standards (U. S. Grade B) or better and the balance, except for tolerance, are of the quality of U. S. Trades (U. S. Grade C) or slightly stained or slightly soiled U. S. Standards (U. S. Grade B) or better. The maximum number of eggs allowed as tolerance per 30 dozen eggs shall be 16 U. S. Checks or U. S. Cracks. (For weight requirements see page 8).

U. S. TRADES or U. S. GRADE C shall consist of eggs of which at least 80% are of the quality of U. S. Trades (U. S. Grade C) or better and the balance, except for tolerance, are of the quality of stained or dirty U. S. Trades (U. S. Grade C) or better. The maximum number of eggs allowed as tolerance per 30 dozen eggs shall be 18 U. S. Checks or U. S. Cracks. (For weight requirements see page 8.)

SIZE or WEIGHT CLASSIFICATIONS. In the U. S. Retail Grades for fresh shell eggs the following size or weight classifications are established:

| Size or :<br>Weight :<br>Class : | Minimum Net<br>Weight per<br>Dozen (Ounces) | : Minimum Net<br>Weight per<br>30 Dozen (Pounds) | : Minimum Weight for<br>Individual Eggs (Rate<br>per dozen) (Ounces) |
|----------------------------------|---|--|--|
| LARGE                            | 24  | 45   | 23   |
| MEDIUM                           | 21  | 40   | 20   |
| SMALL                            | 18  | 34   | 15   |

## UNITED STATES RETAIL GRADES FOR STORAGE EGGS

United States Retail Grades for storage shell eggs are established, corresponding to all of the United States Retail Grades for fresh shell eggs, except U. S. Specials or U. S. Grade AA, and except that the air cell depth for eggs of the quality of U. S. Extras (U. S. Grade A), clean or dirty, may be not to exceed 1/4 inch in depth, and for eggs of the quality of U. S. Standards (U. S. Grade B), clean or dirty, may be not to exceed 3/8 inch in depth, and provided further, that the specified minimum net weight for each storage United States Retail Grade may be one-half ounce per dozen or one pound per 30 dozen less than for the corresponding fresh United States Retail Grade.

NO GRADE. Any lot of eggs that fails to meet the requirements of a U. S. Wholesale or a U. S. Retail Grade or any lot of eggs that has been contaminated by smoke, chemical or other foreign material in such a way as to affect seriously the character, appearance or flavor of the eggs shall be classed as "No Grade". Normal storage flavor shall not be deemed ground for classifying eggs as "No Grade".

### DEFINITION OF TERMS

Terms descriptive of shell.

- (1) CLEAN. A clean shall is one that is free from foreign matter and from stains or discolorations that readily visible. Eggs that show traces of processing oil on the shell are considered clean when classified as processed or shell-treated eggs, unless the shell is otherwise soiled.
- (2) SLIGHTLY STAINED or SLIGHTLY SOILED. A slightly stained or slightly soiled shell is one that has slightly soiled spots or stained spots on it that are readily visible or that shows a slightly mussy appearance but without adhering dirt which could be readily detached. Slight stains, or finger marks are typical eggs of this character.
- (3) STAINED or DIRTY. A stained or dirty shell is one that has dirty or stained spots of considerable size. Stained or dirty eggs may also have loose or readily detachable dirt on the shell.
- (4) UNBROKEN. An unbroken shell is one that is free from blind checks, checks, or cracks.
- (5) CHECKED or CRACKED. A checked or cracked shell is one that has an actual break in the shell but where the shell membrane is unbroken so that there is no leakage from the egg.
- (6) LEAKER. A leaker is an egg in which the shell and shell membrane are broken to the extent that there is leakage of the egg contents through the shell.

- (7) SMASHED. A smashed egg is one in which the shell has been partly or wholly destroyed so that a considerable proportion of the egg content has escaped.
- (8) NORMAL. A normal shell is one that approximates the usual shape and that is of good, even texture and strength and free from distinct ridges, rough areas, thin spots, or other conditions not common to good shells. Slight ridges and rough areas that do not affect materially the shape, texture and strength of the shell are permitted.
- (9) SLIGHTLY ABNORMAL. A slightly abnormal shell is one that may be somewhat unusual in shape or that may be somewhat faulty in texture or strength. It may also show distinct but not pronounced ridges, thin spots or rough areas.
- (10) ABNORMAL. An abnormal shell is one that may be decidedly misshapen or that may be decidedly faulty in texture or strength or that may show pronounced ridges, rough spots, or other defects.

Terms descriptive of the air cell.

- (11) DEPTH OF AIR CELL. The depth of the air cell when in its natural position is the distance from the large end of the egg to the plane passing through the egg at the point where the air cell outline touches the shell.
- (12) REGULAR. A regular air cell is one that retains a fixed position in the egg and that shows a practically even, smooth outline without any movement when the egg is twirled.
- (13) SLIGHTLY TREMULOUS. A slightly tremulous air cell is one that retains a practically fixed position in the egg but shows a slight movement, not to exceed  $1/8$  inch, at any one point where its lower edge touches the shell.
- (14) MOVEMENT NOT IN EXCESS OF  $1/2$  INCH. An air cell that shows a movement not in excess of  $1/2$  inch at any one point where its lower edge touches the shell.
- (15) BUBBLY AIR CELL. A bubbly air cell is one that has several rather small bubbles within or beneath it that give it a bubbly appearance.
- (16) FREE. A free air cell is one that moves freely about in the egg. Such an air cell will seek the uppermost point in the egg, no matter in what position the egg may be held.

Terms descriptive of the yolk.

- (17) WELL CENTERED. A yolk that occupies the center of the egg without much movement from that position when the egg is twirled.
- (18) FAIRLY WELL CENTERED. A yolk that occupies the center of the egg but which may show a moderate movement from that position when the egg is twirled.



- (19) OUTLINE SLIGHTLY DEFINED. A yolk, the outline of which, when viewed before the candle, is indistinctly indicated and tends to blend into the surrounding white.
- (20) OUTLINE MODERATELY DEFINED. A yolk, the outline of which, when viewed before the candle, is discernible but not clearly and definitely demarcated. Visibility of yolk due to yolk color should not be confused with a moderately defined outline of yolk.
- (21) OUTLINE WELL DEFINED. A yolk, the outline of which, when viewed before the candle, is quite definite and distinct.
- (22) MOBILE. A mobile yolk is one that shows appreciable movement away from the center of the egg when the egg is twirled before the candle.
- (23) FREELY MOBILE. A freely mobile yolk is one that shows a wide movement or swing away from the center of the egg when the egg is twirled before the candle and that comes sufficiently close to the shell to appear decidedly dark.
- (24) PLAINLY VISIBLE. A plainly visible yolk is one that has a definitely discernible outline before the candle and that may appear dark.
- (25) FREE FROM DEFECTS OR BLEMISHES VISIBLE BEFORE THE CANDLE. A yolk that when viewed before the candle shows no spots or areas on its surface indicating the presence of germ development, defects or blemishes.
- (26) DEFINITE BUT NOT SERIOUS DEFECTS VISIBLE BEFORE THE CANDLE. A yolk that may show spots or areas on its surface when viewed before the candle indicative of definite defects but with no definite indication of germ development or other pronounced or serious defects or blemishes.
- (27) OTHER SERIOUS DEFECTS. A yolk that is weak or that shows well developed spots or areas of a character that constitute serious defects or blemishes but do not render the egg inedible.
- (28) CLEARLY VISIBLE GERM DEVELOPMENT. A development of the germ on the yolk of a fertile egg that has progressed to a point at which it is plainly visible before the candle as a rather definite, deeper colored area or as a bubble or spot on the yolk.
- (29) BLOOD DUE TO GERM DEVELOPMENT. Blood caused by development of the germ in a fertile egg to the point where blood has formed and is visible before the candle. Such eggs are classed as inedible.
- (30) BLOOD NOT DUE TO GERM DEVELOPMENT (Blood spots). Spots or clots of blood usually on the surface of the yolk but sometimes floating in the white. Such blood clots or spots are incorporated in the egg during its formation as or after the yolk leaves the ovary. Such blood spots have no connection with germ development. If they are small (not over

1/8 inch in any diameter) the eggs may be classed as U. S. Trades (U.S. Grade C). If they are large, the egg should be classed in inedible.

Terms descriptive of the white.

- (31) CLEAR. A clear white is one that is free from discoloration or from any foreign bodies floating in it. Prominent chalazae should not be confused with foreign bodies.
- (32) FIRM. A firm white is one that is sufficiently thick or viscous to permit but limited movement of the yolk from the center of the egg when it is twirled. A firm white should have the approximate consistency of the whites shown in numbers 1, 1.5, or 2 of the Van Wagenen chart of broken-out eggs.
- (33) REASONABLY FIRM. A reasonably firm white is one that has a reasonably good viscous condition but not as strong a condition as a firm white. It should have the approximate consistency of the whites shown in numbers 2, 2.5, or 3 of the Van Wagenen broken-out egg chart. A reasonably firm white permits the yolk to move somewhat more freely from its normal position in the center of the egg and thus to approach the shell more clearly when the egg is twirled. A reasonably firm white may therefore cause the outline of the yolk to be moderately defined.
- (34) SLIGHTLY WEAK. A slightly weak white is one that has lost its firm or even its reasonably firm condition, has become more watery and is not as clearly differentiated from the thin white when the egg is broken out. It should have the approximate consistency of the whites shown in numbers 3, 3.5 or 4 of the Van Wagenen chart of broken-out eggs.
- (35) WEAK AND WATERY. A weak and watery white is one that is thin and generally lacking in viscosity and that therefore permits the yolk to move freely from its normal position in the center of the egg and to approach the shell closely when the egg is twirled. It should have the approximate consistency of the whites shown in numbers 4, 4.5, or 5 of the Van Wagenen chart of broken-out eggs.
- (36) SMALL MEAT SPOTS. Small meat spots are small pieces of foreign material present in the egg white and that are visible before the candle as dark, irregularly shaped bodies. When an egg contains a small meat spot (not over 1/8 inch in any diameter) that can be readily removed when the egg is broken, the egg may be classed as a U. S. Trade (U.S. Grade C). Eggs containing large or unsightly meat spots should be classed as inedible.

- (37) BLOODY WHITE. An egg, the white of which has blood diffused more or less generally through it. Such a condition may be present in newlaid eggs but, because of the unappetising appearance, eggs with bloody whites are classed as inedible.

General Terms.

- (38) INEDIBLE EGGS. Under the Federal Food and Drugs Act eggs that are filthy, putrid or decomposed in whole or in part are adulterated. The following are regarded as inedible eggs: Black rots, white rots, mixed rots (addled eggs), sour eggs, eggs with green whites, eggs with stuck yolks, moldy eggs, eggs showing blood rings, eggs containing embryo chicks (at or beyond the blood ring stage), and any other eggs which are filthy, decomposed, or putrid. For the purpose of the United States Standards for Quality of Shell Eggs, eggs with bloody whites or eggs containing large blood clots or large or unsightly meat spots shall be considered inedible eggs.
- (39) LOSS. Eggs that are inedible, leaking, or smashed or that contain bloody whites, large blood spots or large or unsightly meat spots shall be classified as Loss.



SUMMARY OF PROPOSED REVISED UNITED STATES STANDARDS FOR INDIVIDUAL EGGS WITH CLEAN, UNBROKEN SHELLS

(Numbers in parentheses are the numbers of the definitions of terms used. See pages 2 to 13)

| Quality Factors | SPECIFICATIONS OF EACH QUALITY FACTOR   |  |  |   |
|-----------------|---|--|--|---|
|                 | U.S. Special or U.S. Grade AA   | U.S. Extra or U.S. Grade A   | U.S. Standard or U.S. Grade B  | U.S. Trade or U.S. Grade C  |
| SHELL           | Clean (1); unbroken (4); normal (8).  | Clean (1); unbroken (4); normal (8).   | Clean (1); unbroken (4); may be slightly abnormal (9).   | Clean (1); unbroken (4); may be abnormal (10).  |
| AIR CELL        | One-eighth inch or less in depth (11); regular (12); or may be slightly tremulous (13)          | Three-sixteenth inch or less in depth (11); regular (12); or may be slightly tremulous (13).             | Five-sixteenth inch or less in depth (11); may show movement not in excess of one-half inch (14). The air cell may be free (16) if it is small (not over three-sixteenth inch in depth). | May be over five-sixteenth inch in depth (11); may be bubbly (15) or free (16).   |
| YOLK            | Well centered (17); outline slightly defined (19); free from visible defects or blemishes (25). | Fairly well centered (18); outline moderately defined (20); free from visible defects or blemishes (25). | Outline may be well defined (21); may be mobile (22); may show definite but not serious defects (26).  | May be plainly visible (24); may be freely mobile (23) and appear dark; may show clearly visible germ development (28) but no blood due to such development (29); may show other serious defects (27) that do not render egg inedible (38). |
| WHITE           | Clear (31); firm (32).  | Clear (31); reasonably firm (33).  | Clear (31); may be slightly weak (34).   | May be weak and watery (35); small meat spots (36) or small blood clots (30) may be present.  |







[illegible]

UNITED STATES FEDERAL BUREAU OF INVESTIGATION

UNITED STATES WOLFSPLEADERS GRADES FOR STORAGE EGGS are established, corresponding to all of the United States Wolfsplead Grade for fresh shell eggs. The following are the minimum requirements for each grade:

Grade 1. Eggs of the quality of U. S. Grade A, clean or dirty, may be not to exceed 1 1/4 inch in depth, and for eggs of the quality of U. S. Grade B, clean or dirty, may be not to exceed 3/4 inch in depth, and provided further, that the specified minimum net weight per 30 dozen eggs for each storage United States Wolfsplead Grade may be one pound less than for the corresponding fresh United States Wolfsplead Grade.



SUMMARY OF PROPOSED REVISED UNITED STATES RETAIL GRADES FOR FRESH SHELL EGGS

| U. S.<br>RETAIL<br>GRADES              | U. S. Speciale<br>(U. S. Grade AA) | U. S. Extras<br>(U. S. Grade A) | U. S. Standards<br>(U. S. Grade B) | U. S. Trades<br>(U. S. Grade C) | U. S. Trades<br>(U. S. Grade D) | Maximum Number of Eggs Allowed as Tolerance per 30 Dozen Eggs*<br>(Figures in parentheses are percentages) |                  |                  |
|--|------------------------------------|---------------------------------|------------------------------------|---------------------------------|---------------------------------|--|------------------|------------------|
|  | Minimum<br>Percentage              | Minimum<br>Percentage           | Minimum<br>Percentage              | or better<br>Grade B or better  | or better<br>Grade C or better  | U. S.<br>Grade A   | U. S.<br>Grade B | U. S.<br>Grade C |
| U. S. Speciale<br>or<br>U. S. Grade AA | 80                                 | Balance                         |                                    |                                 |                                 | 9<br>(2.5)   | 8<br>(2.2)       |                  |
| U. S. Extras<br>or<br>U. S. Grade A    |                                    | 80                              | Balance                            |                                 |                                 | 12<br>(3.3)  |                  | 12<br>(3.3)      |
| U. S. Standards<br>or<br>U. S. Grade B |                                    |                                 | 80                                 | Balance                         |                                 | 16<br>(4.4)  |                  |                  |
| U. S. Trades<br>or<br>U. S. Grade C    |                                    |                                 |                                    |                                 | 80                              | 18<br>(5.)   |                  | Balance          |

\* See Rule of Compensation, Page 6.

THE FOLLOWING WEIGHTS SHALL APPLY TO THE PROPOSED REVISED U. S. RETAIL GRADES FOR FRESH SHELL EGGS

| Weight<br>Class | Minimum Average<br>Net Weight per<br>Dozen (Ounces) | Minimum Average<br>Net Weight per<br>30 Dozen (Pounds) | Minimum Weight for<br>Individual Eggs<br>(Rate per Dozen) (Ounces) |
|-----------------|---|--|--|
| LARGE           | 24  | 45   | 23   |
| MEDIUM          | 21  | 40   | 20   |
| SMALL           | 18  | 34   | 15   |

UNITED STATES RETAIL GRADE FOR STORAGE EGGS - United States Retail Grades for storage shell eggs are established, corresponding to all of the United States Retail Grades for fresh shell eggs, except U. S. Speciale or U. S. Grade AA, and except that the air cell depth for eggs of the quality of U. S. Extras (U. S. Grade A), clean or dirty, may be not to exceed 1/4 inch in depth, and for eggs of the quality of U. S. Standards (U. S. Grade B), clean or dirty, may be not to exceed 3/8 inch in depth, and provided further, that the specified minimum net weight for each storage United States Retail Grade may be one-half ounce per dozen or one pound per 30 dozen less than for the corresponding fresh United States Retail Grade.

